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UNIT 3: Contrastive Analysis of Venezuelan vocalic system and RP/American English vocalic system.

Introduction

The general definition of vowels may start by considering its etymology: The English word *vowel* comes from the Latin word *vocalis*, meaning "speaking"; in Old French the form of this word was *vouel* and around 1300 it appeared in Middle English under the form it has today. This word is commonly used in making reference to letters representing or usually representing a vowel, as is the case of English and Spanish a, e, i, o, u (sometimes y and w also represent vowels).

D. Jones gives the following definition: *A vowel (in normal speech) is defined as a voiced sound in forming which the air issues in a continuous stream through the pharynx and mouth, there being no obstruction and no narrowing such as would cause audible friction*.[1]

A graphic representation of this definition is given in image 1:

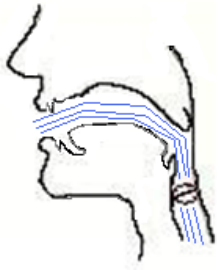


Image 1

In phonetics sciences, vowels can be studied from different points of view, among others, it is possible to consider *articulatory, acoustics, auditory and phonological/functional* analyses.

From the point of view of articulatory phonetics –as it was mentioned above- vowels are sounds produced with a completely open tract and constant vibrations of the vocal folds or, stated in another way, a speech sound produced without occluding, diverting, or obstructing the flow of air from the lungs. This is in contrast with consonants which are noises produced with or without vibrations of the vocal cords and some kind of closure or constriction at some point of the oral cavity.

From an acoustic perspective, vowels are produced out of periodic waves, therefore, they are considered sounds, while consonants, being produced by aperiodic waves, are considered noises. This feature of vocalic waves might be visualized through spectrograms, which are the graphic representations of the acoustic decomposition and analysis performed with electronic and computer devises which display the acoustic energy at each frequency, and how this changes with time. The vertical axis in a spectrogram represents frequency, with 0 Hz at the bottom. The

[1] Jones, Daniel (1980). An Outline of English Phonetics. Cambrige : C.U.P. p.23

horizontal axis represents time. For a given spectrogram, the strength of a given frequency component at a given time in the speech signal is represented by the darkness of the corresponding point. Image 2 shows the spectrographic representation of eight English pure vowels. Notice dark horizontal bands for each vowel have a different place in the vertical axis, giving each vowel its particular spectrographic or acoustic configuration.

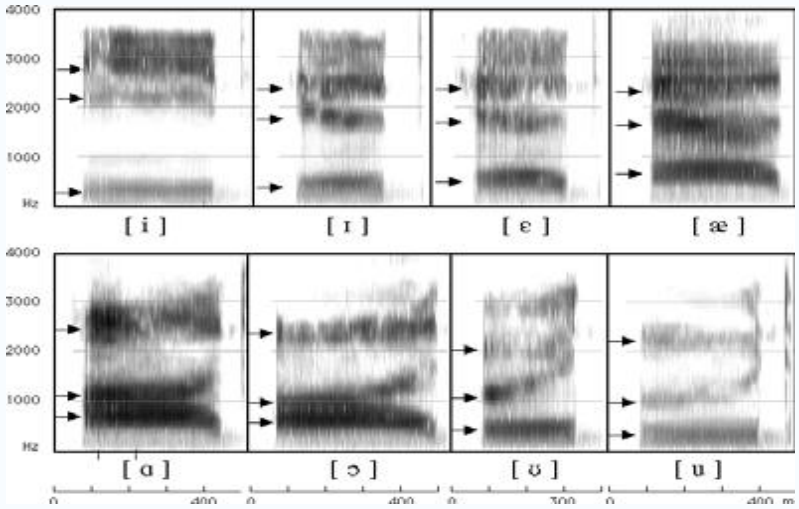


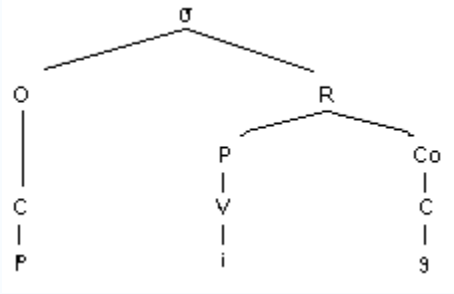
Image 2.

There is a close relationship between vowel articulation and its acoustic configuration, this correlation gives each vocalic sound its different vowel qualities which are realized in acoustic analyses of vowels by the relative values of the formants, showing acoustic resonances of the vocal tract in dark bands on a spectrogram. The vocal tract acts as a resonant cavity, and the position of the jaw, lips, and tongue affect the parameters of the resonant cavity, resulting in different formant values.

Auditory phonetics is concerned mainly with the perception of human speech and takes into account the functions of outer, middle and inner ear, as well as the transmission nerves and cognitive structures involved in the complex processes of perception, decodification and comprehension of speech. Auditory analysis is basically devoted to observe how articulatory gestures affect the production and perception of speech components. Suffice here to mention that, in auditory terms, vowels are considered more prominent than consonants.

From a phonological or functional point of view, vowels are identified as the nucleus or peak of syllables, whereas consonants form the onset and, sometimes, coda. In the particular case of English system, it is possible to observe consonants functioning as nucleus of a syllable, such as the syllabic [l̩] or [n̩]. Nevertheless, it does not mean that those syllabic consonants may be considered vowels; they just behave as vowels from a functional perspective. It is important to set clear that Phonotactics is a branch of phonology that studies the permissible strings of phonemes in a language. The syllable is a central unit in phonotactic description, although sometimes the principles governing the distribution of phonemes go beyond the confines of a single syllable.

This general functional position of the syllable may be better approached by observing the syllable structure. It has two immediate constituents: the Onset, which includes any consonants that precede the nuclear element, and the Rhyme, which implies presence of the nuclear element (the vowel) as well as any marginal elements (consonants) that might follow it. The Rhyme, in turn, further branches into Peak, also known as Nucleus, and Coda. The Peak, as its name suggests, represents the "nuclear" or most sonorous element in a syllable. The Coda includes all consonants that follow the Peak in a syllable. Syllable structure may be represented graphically by means of a "tree diagram". The first example we shall take is *pig* /ˈpɪg/



A vowel sound whose quality doesn't change over the duration of the vowel is called a monophthong. Monophthongs are sometimes called "pure" or "stable" vowels. A vowel sound that glides from one quality to another is called a diphthong, and a vowel sound that glides successively through three qualities is a triphthong. All languages have monophthongs and many languages have diphthongs, but triphthongs or vowel sounds with even more target qualities are relatively rare cross-linguistically. English and Spanish have all three types.

We might note the conflict between the phonetic definition of 'vowel' (a sound produced with no constriction in the vocal tract) and the phonological definition (a sound that forms the peak of a syllable). The approximants [j] and [w] illustrate this conflict: both are produced without much of a constriction in the vocal tract (so phonetically they seem to be vowel-like), but they occur on the edge of syllables, such as at the beginning of the English words 'yes' and 'wet' (which suggests that phonologically they are consonants). The American linguist Kenneth Pike suggested the terms 'vocoid' for a phonetic vowel and 'vowel' for a phonological vowel, so using this terminology, [j] and [w] are classified as vocoids but not vowels.

Articulatory phonetic features used to describes vocalic sounds

A phonetics articulatory description of vowels implies considering basically some parameters which are related to the placement and muscular tension of the tongue inside the oral cavity as well as the lip condition. These parameters are: the shape of the tongue; the tongue height, tongue anteriority, tongue tension, position of lips. Also, related to tongue height, it is important to consider jaw position.

1. Shape of the tongue:

- Convex
- Concave

2. Tongue height (or degree of rising of the tongue):
   - High or close
   - Half- high or half-close
   - Half-low or half-open
   - Low or open.

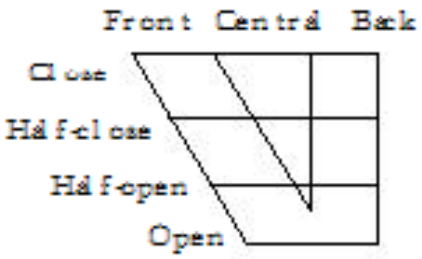
This feature is closely related to jaw position. Therefore, it is possible to classify this alike in:
- close
- medium
- open.

3. Lips shape also play an important role in the description and classification of vowels:
   - Rounded,
   - spread,
   - neutral

4. Part of the tongue raised:
   - Front
   - Central
   - Back

5. Tongue tension
   - Tense
   - Lax

To represent the different position of the tongue in the production of vowels, phoneticians devised a chart where parameters 2 and 4 are represented:



The fifth parameter considered in the description and classification of vocalic phonemes, taking into account the amount of tension required in the production of these phonemes refers, in phonology, to tenseness which is a particular vowel quality phonemically contrastive in many languages, including English. It has also occasionally been used to describe contrasts in consonants. Unlike most distinctive features, the feature [tense] can be interpreted only relatively, that is, in a language like English that contrasts [i] (e.g. *beat*) and [ɪ] (e.g. *bit*), the former can be described as a tense vowel while the latter is a lax vowel. In alternative terminology, the terms *checked vowel* and *free vowel* correspond closely to the terms **lax vowel** and **tense vowel** respectively, but many linguists prefer to use the terms *checked* and *free* as there is no clearcut

phonetic definition of vowel tenseness, and since by most attempted definitions of tenseness /ɔ/ and /ɑ/ are considered lax, even though they behave in American English as free vowels.

In General American, the five checked vowels are:

- /ɪ/ as in *bit*
- /ɛ/ as in *bet*
- /æ/ as in *bat*
- /ʊ/ as in *put*
- /ʌ/ as in *putt*

The free vowels are:

- /iː/ as in *bee*
- /eɪ/ as in *bay*
- /uː/ as in *boo*
- /oʊ/ as in *toe*, *no*
- /ɔː/ as in *paw*
- /ɑː/ as in *bra*
- /ɝː/ as in *burr*
- /aɪ/ as in *buy*
- /aʊ/ as in *cow*, *now*
- /ɔɪ/ as in *boy*

CONTRASTIVE ANALYSIS OF RP ENGLISH / SPANISH VOCALIC SYSTEMS.

Close Vowels.

/i/

English	**Spanish**
Vocalic, Close, Front, Tense.	Vocalic, Close, Front
Description	**Description**
The front of the tongue is raised to a height slightly below and behind the close front position; the lips are spread, the tongue is tense, with the side rims making a firm contact with the upper molars.	The oral tract is in a slightly narrowed condition with the tongue front raised towards the hard palate. The lips are partially spread and the tongue is a bit tense, with the side rims making a firm contact with the upper molars.
Variants	**Variants**
[i:] Long. It has a tendency to be diphthongized, especially in final position. As a vowel, it always takes the place of syllabic nucleus, where it is affected by the voiced, lenis features of following consonants. Ex. 'see, 'seed, 'seen'. ['si:] ['si:d] ['si:n]	[i] Oral, Front, close, unrounded. As a vowel, it always takes de place of syllabic nucleus. Ex. 'lima', 'país', 'sismo'. ['lima] [pa'is] ['sismo]
[i] Reduced. As a vowel, it always takes the place of syllabic nucleus, where it is affected by the voiceless, fortis features of surrounding consonants. Ex. 'seat, 'feet, 'lease'. ['sit] ['fit] ['lis]	[j] Glide, palatal, unrounded. As a marginal syllabic element, it appears in diphthongs and triphthongs. Ex. 'bien, 'rabia, 'aire'. ['bjen] ['raβja] ['ajre]
Common Spelling The allophonic realizations of the phoneme /i/ are spelled ee, e, ea, ie, ei, I, ey, in English.	**Spelling** The allophonic realizations of the phoneme /i/ are spelled i, y in Spanish.
Exceptional Spelling Eau, ey, ey, uay, eo, oe, é as in *Beauchamp, geyser, quay, people, Phoebe, précis.*	

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/ɪ/

English

Vocalic, Close, Front, lax.

Description

This vowel is pronounced with a part of the tongue between front and centre raised just above the half-close position; the lips are loosely spread; the tongue is lax with the side rims making a light contact with the upper molars. It may occur in all nuclear positions in the word.

Variants

[ɪ] It is the principal realization of the phoneme /ɪ/. In some regions, it tends to be produced in an area closer to the half-open position. In extremely relaxed pronunciations, [ɪ] can be replaced by [ə]
Ex. 'sit, 'rich, 'city'.
['sɪt] ['rɪtʃ] ['sɪti]

[ɾ] It appears in open syllables final position and in closed syllables before voiced lenis consonants.
Ex. Busy, Friday, bid, ridge
[bɾzi][fraɪdɾ][bɾd][ɾɾdʒ]

Common Spelling

The allophonic realizations of the phoneme /ɪ/ are spelled i, y, e, ie, a, ey, a, -ed, -edly in English.

Spanish

This phoneme does not exist in Spanish

/u:/

English

Vocalic, Close, back, tense.

Description

This vowel is pronounced with the back of the tongue raised towards the soft palate to a back close position; the lips are closely rounded; the tongue is somehow tense and there is no contact between the side rims and the upper molars. This phoneme does not normally occur before /ŋ/.

Variants

[u:] It is the normal fully tense and long realization of the phoneme /u:/. It occurs in final position (open syllables) and before voiced, lenis consonants.
Ex. 'food', 'do', 'soup'.
['fu:d] ['du:] ['su:p]

[uˑ] A shortened realization of the phoneme /u:/. It appears when the phoneme is followed by voiceless fortis consonants, where the effects of coarticulation impose a reduction in duration.
Ex. Boot, group, hoof.
[buˑt] [gruˑp] [huˑf]

Spelling

The allophonic realizations of the phoneme /u:/ are spelled oo, o ou, u, ew, ue, ui, oe, in English.

Exceptional Spelling

Eau /ju:/as in *beautiful, beauty.*

Spanish

Vocalic, close, back

Description

This vowel is pronounced with the back of the tongue raised towards the soft palate; the lips are lightly rounded and protuberant; the tongue tension is not a relevant feature in Spanish. There is no contact between the side rims and the upper molars.

Variants

[u] It is the normal realization of the phoneme /u/ which, as a vowel, always appears as a syllabic nucleus. It is described as close, back, oral.
Ex. Puso, mundo, uña.
['puso]['mundo]['uɲa]

[w] It is described as a glide, velar, rounded. It is a marginal element of syllables in diphthongs and triphthongs.
Ex. 'causa', 'cuatro', 'guaira'.
['kawsa] ['kwatro] ['gwajra]

Spelling

The allophonic realizations of the phoneme /u/ are spelled u in Spanish.

Exceptional Spelling

In Spanish u appears in some write words, but it is not pronounced, as in the case of *guerra* and *queso.*

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/ʊ/

English

Vocalic, Close, back, lax.

Description

This vowel is pronounced with the centre and back of the tongue raised towards the soft palate, but not so high as for /u:/; the lips are loosely rounded; the tongue is lax and there is no contact between the side rims and the upper molars.

Variants

[ʊ] It is the normal realization of the phoneme /ʊ/. It normally occurs in both accented and unaccented syllables. But it does not occur in word initial position nor before final /ŋ/. It is found finally only in the unaccented form of 'to'. It appears when dark l is in final position in words

Ex. 'put', 'wolf', 'good'.

['pʊt] ['wʊlf] ['gʊd]

[ʊˑ] Lengthened. It is the normal realization of the phoneme /ʊ/ when it occurs before voiced, lenis consonants, especially before [ɬ].

Ex. 'bull', 'could', 'hood'

[bʊˑɬ] [kʊˑd] [hʊˑd]

Spelling

The allophonic realizations of the phoneme /ʊ/ are spelled u, o, oo, ou in English.

Spanish

This phoneme does not exist in Spanish

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Half-Close / Half–Open Vowels.

/e/

English

Vocalic, Half-close, front, partially tense.

Description

In the production of this vowel the front of the tongue is raised between the half-close and half-open positions. The tongue is tenser than for [ɪ]. This phoneme does not occur in final position in open syllables in English. Lips are in a loosely spread or neutral position.

Variants

[e] It is the normal realization of the phoneme /e/. It normally occurs in syllable medial position both in stressed and unstressed ones.
Ex. 'pen', 'deaf', 'check'.
['pen] ['def] ['tʃek]

[ɛ] This allophone represents an opener and retracted variety which is used when [ɬ] follows.
Ex. 'tell', 'shell', 'felt'.
['tɛɬ] ['ʃɛɬ] ['fɛɬt]

[eˑ] This allophone represents a lengthened variety which is used when a voiced lenis consonant follows.

Spelling

The allophonic realizations of the phoneme /e/ are spelled *e, ea, a,* in English. There are also many words with exceptional spellings for this sound as *u, ie, eo, ei, ieu, ey, ai, ay*.

Spanish

Vocalic, medial, front

Description

In the production of this vowel the front of the tongue is raised between the half-close and half-open positions; the lips are loosely spread.

Variants

[e] It is the normal realization of the phoneme /e/ in any unstressed position or in stressed position before a nasal consonant.
Ex. 'semana', 'embuste', 'lento'.
[se'mana] [em'buste] ['le̪nto]

[e̞] This allophone is a little opener than [e] but not as open as [ɛ]. It appears in all stressed syllables except when the syllable is closed by a nasal consonant.
Bueno, papel, pesca, eje

Also, in very relaxed speech, [e]may be pronounced [ə].

Spelling

The allophonic realizations of the phoneme /e/ are spelled e in Spanish.

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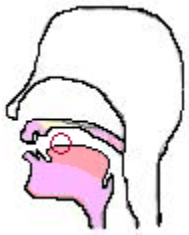

/ɜ:/

English

Half-open, central, tense.

Description

In the production of this vowel the part of the tongue between front and blade is raised just to the central position; the lips are in a neutral shape. The side rims of the tongue make no firm contact with upper molars. This phoneme has a very high frequency of occurrence in unaccented syllables. This phoneme appears mostly in British English.

Variants

[ɜ:] It is the normal reduced realization of the phoneme /ɜ:/ which occurs in the pronunciation of a vowel followed by –r in stressed position in British English. In American English the tendency is to produce a softly articulated "r", so the pronunciation would be [ɜ^{r}] or [ɜ˞]

Spelling

The allophonic realizations of the phoneme /ɜ:/ are spelled V + r in British English, with different vowels, like *u, e, i, ea, ou, o* occupying this place.

Spanish

This phoneme does not exist in Spanish

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/ə/

English	**Spanish**
Vocalic, central, lax. **Description** In the production of this vowel the blade of the tongue is raised just to the central position; the lips are in a neutral shape. This phoneme has a very high frequency of occurrence in unaccented syllables. Lips are in neutral position. **Variants** [ə] It is the normal realization of the phoneme /ə/ which may occur in different position inside words in unstressed syllables. It may be articulated with the tongue near the half-close position when adjacent to velars; central position when in non-final positions and near half-open position when it is final Ex. 'along', 'concert', 'horrible'. [əˈlɔŋ] [ˈkɔnsət] [ˈhɔrəbł] **Spelling** The allophonic realizations of the phoneme /ə/ are spelled i, e, a, o, u, ar, er, or, ou, our, ure in English.	This phoneme does not exist in Spanish

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/ɔ/

English

Half-open, tense, back, rounded.

Description

In the production of this vowel the back of the tongue is raised towards the velum and held in an intermediate position between half-open and open. The tongue is kept with some tension while no contact is made with the upper molars. The jaw opening is medium, the lips are rounded.

Variants

[ɔ] It is the normal reduced realization of the phoneme /ɔ/ which may occur in different position inside words in stressed and unstressed syllables, normally followed by voiceless consonant.
Ex. Sort, ought, horse, chalk, quart.

[ɔ:] It is the member of the phoneme which is used when the vowel is relatively long, normally followed by voiced consonants.
Ex. Saw, sort, war, wart, board, bought, saws, sauce.

Spelling

The allophonic realizations of the phoneme /ɔ/ are spelled *or, aw, ou, au, a, ore, oor, oar, our* in English.

Spanish

Medial, back, rounded.

Description

In the production of this vowel the back of the tongue is raised towards the velum and held just below the half-close position. The jaw opening is medium, the lips are loosely rounded.

Variants

[o] It is the normal realization of the phoneme /o/ in any unstressed position or in stressed position before /s/.
Ex. 'comer', 'paso', 'lados', 'tosco'.
[koˈmẹr] [ˈpaso] [ˈlaðos] [ˈtosko]

[ọ] This allophone is a little opener than [o] but not as open as [ɔ]. It appears in all stressed syllables except when the syllable is closed by /s/.
Ex. 'roca', 'hoja', 'hoy', 'ahora'.
[ˈrọka] [ˈọha] [ˈọj] [aˈọra]

Spelling

The allophonic realizations of the phoneme /o/ are spelled *o* in Spanish.

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Half-Open / Open Vowels

/a/

English

This phoneme does not exist in English. It appears only as an element of diphthongs.

Spanish

Open, central, unrounded

Description

In the production of this phoneme the blade of the tongue is slightly raised towards the hard palate and held in open position. The tongue is kept with a rather lax tension while the back side rims do not make any contact with the upper back molars. The lips are unrounded and the jaw opening is close to fully open. The tongue muscles are lax.

Variants

[a] It is the normal realization of the phoneme /a/ which is often pronounced in any position except before /o/ and /h/.

[a̲] With a retracted realization before /o/ and /h/. Despite the fact that the articulation of this phoneme goes backwards, it is not as back as English /ɑ/

Ex.

Pasa, mar, pausa, alma, ahora, paja

Spelling

The allophonic realizations of the phoneme /a/ are spelled *a,* in Spanish.

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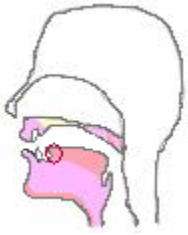

/æ/

English	**Spanish**
Open, lax, front, unrounded **Description** In the production of this phoneme the front of the tongue is slightly raised towards the hard palate and held in a position between open and half-open. The tongue is kept with a rather lax tension while the back side rims make a light contact with the upper back molars. The lips are unrounded and the jaw opening is between medium and fully open. The tongue muscles are lax. This phoneme does not occur in final position, nor in stressed or open syllables. **Variants** [æ] It is the normal realization of the phoneme /æ/ which is often pronounced with considerable constriction of the pharynx in the South of England. [æ:] With a lengthened realization before voiced lenis consonants. Ex. Mad, hand, rat, plait, plaid (BrE) **Spelling** The allophonic realizations of the phoneme /æ/ are spelled *a (ai exceptionally)* in English.	This phoneme does not exist in Spanish

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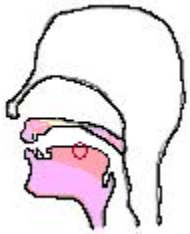

/ʌ/

English	**Spanish**
Open, central, lax, unrounded. **Description** In the production of this vowel the center of the tongue is raised towards the point where the hard palate joins the velum, and is held in a position slightly closer than fully open. The lips are neutrally open; there is no contact between the side rims of the tongue and the upper molars. The jaws are in a relatively open position. **Variants** [ʌ] It is the normal realization of the phoneme /ʌ/ which has no subsidiary members. Ex. Sun, hut, come, among, country, couple, blood, flood, does. [ʌˑ] Some dialectal variations on English show a lengthened realization before voiced consonants. **Spelling** The allophonic realizations of the phoneme /ʌ/ are spelled *u, o, ou, oo, (exceptionally oe)* English.	This phoneme does not exist in Spanish

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/ɑ/

English	**Spanish**
Open, tense, back, unrounded **Description** In the production of this normally long vowel there is a considerable separation of the jaws, and the lips are neutrally open. The center and back of the tongue is slightly raised towards the hard palate and held in a fully open position. The tongue is kept with a rather tense condition while the back side rims make no contact with the upper back molars. The lips are unrounded and the jaw opening is full. The tongue muscles are tense. This phoneme does not occur before /ŋ/ **Variants** [ɑ] It is the normal realization of the phoneme /ɑ/ which is often pronounced in both stressed and unstressed positions, specially before the cluster [rɬ]. [ɑ:] With a lengthened realization before voiced lenis consonants. This lengthening is not as marked as for the other vowels with the same behavior. Ex. Pass, after, part, heart, clerk, calm, aunt. **Spelling** The allophonic realizations of the phoneme /ɑ/ are spelled *a, ar, ear, er, oir, au* in English.	This phoneme does not exist in Spanish

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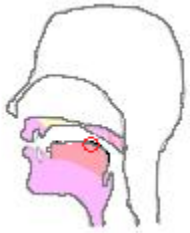

/ɒ/

English

Open, lax, back, slightly rounded.

Description

In the production of this vowel the part of the tongue just in front of the back is raised towards the velum and held in a position slightly closer than fully open. It is articulated with wide open jaws and slight lip rounding. There is no contact between the tongue and the upper molars. It never occurs in final position in open syllables.

Variants

[ɒ] May be considered a reduced realization of the phoneme /ɔ/ which, at the same time, has some qualitative similarity with RP /ɑ:/. The distinction between /ɒ/ and /ɑ:/ is kept through different length and contexts, where V + r would lead to the pronunciation of [ɑ:]in pairs such as *dock, dark, cot, cart* or *lodge*, *large.*

Ex. Sort, ought, horse, chalk, quart.

Spelling

The allophonic realizations of the phoneme /ɒ/ are spelled *o, a, ou,ow, au,* in English.

Spanish

This phoneme does not exist in Spanish

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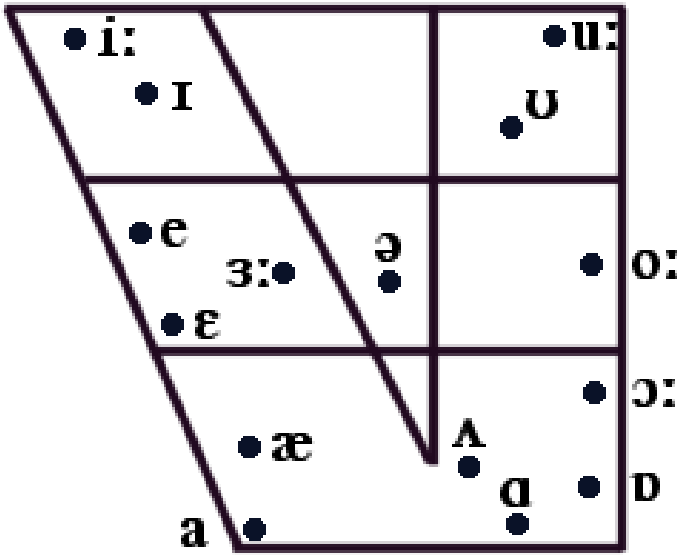
A final remark

It is important to know there are different approaches to the study of vowels, therefore, several author use similar but not identical systems of representing English vowels. In the chart below are included all the symbols to represent vowels in different approaches. Tables show the systems commonly used in our settings.



All included

	English	Spanish
Close vowels	1. /i:/	1. /i/
	2. /ɪ/	2. ∅
	3. /u/	3. /u/
	4. /ʊ/	4. ∅
Middle vowels	5. /e/	5. /e/
	6. / ɜ:/	6. ∅
	7. /ɛ/	7. ∅
	8. / ə/	8. ∅
	9. / o:/	9. /o/
Open vowels	10. /a/	10. /a/
	11. /æ/	11. ∅
	12. /ʌ/	12. ∅
	13. /ɑ/	13. ∅
	14. /ɔ:/	14. ∅
	15. /ɒ/	15. ∅

Professors Goilo and Zapata

	English	Spanish
Close vowels	1. /i:/	1. /i/
	2. /ɪ/	2. ∅
	3. /u/	3. /u/
	4. /ʊ/	4. ∅
Middle vowels	5. /e/	5. /e/
	6. / ɜ:/	6. ∅
	8. / ə/	8. ∅
Open vowels		
	11. /æ/	11. ∅
	12. /ʌ/	12. ∅
	13. /ɑ/	13. ∅
	14. /ɔ:/	14. ∅
	15. /ɒ/	15. ∅

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UNIT 3a: Contrastive Analysis of Venezuelan RP/American English diphthongs

In phonetics, a **diphthong**, pronounced /ˈdɪf.θɔːŋ/, (also **gliding vowel**) (from Greek δίφθογγος, "diphthongos", literally "two sounds" or "two tones") is a contour vowel—that is, a unitary vowel that changes quality during its pronunciation, or "glides", with a smooth movement of the tongue from one articulation to another, as in the English words *eye, boy,* and *cow.* This contrasts with "pure" vowels, or *monophthongs,* where the tongue is held still, as in the English word *pepper.*

Diphthongs often form when separate vowels are run together in rapid speech. However, there are also unitary diphthongs, as in the English examples above, which are heard by listeners as single vowel sounds (phonemes).

In the International Phonetic Alphabet, pure vowels are transcribed with one letter, as in English "sum" [sʌm]. Diphthongs are transcribed with two letters, as in English "eye" [a͡ɪ] or "same" [se͡ɪm]. The two vowel symbols are chosen to represent the beginning and ending positions of the tongue, though this can be only approximate. The diacritic / ͡ / is placed under the less prominent component to show that it is part of a diphthong rather than a separate vowel, though it is sometimes left off in languages such as English, where there is not likely to be any confusion. (That is, in precise transcription, [ai] represents two vowels in hiatus, as found for example in Hawaiian and Japanese, or in the English word "naïve", not a diphthong as in English "knives").

Types of diphthongs

Falling (or **descending**) diphthongs start with a vowel quality of higher prominence (higher pitch or louder) and end in a semivowel with less prominence, like [a͡ɪ] in "eye", while **rising** (or **ascending**) diphthongs begin with a less prominent semivowel and end with a more prominent full vowel, like [ɪ͡a] in "yard". The less prominent component in the diphthong may also be transcribed as an approximant, thus [aj] in "eye" and [ja] in "yard". However, when the diphthong is analysed as a single phoneme, both elements are often transcribed with vowel letters (/a͡ɪ/, /ɪ͡a/). Note also that semivowels and approximants are not equivalent in all treatments, and in the English and Italian languages, among others, many phoneticians do not consider rising combinations to be diphthongs, but rather sequences of approximant and vowel.

In **closing** diphthongs, the second element is closer than the first (e.g. [ai]); in **opening** diphthongs, opener (e.g. [ia]). Closing diphthongs tend to be falling ([a͡ɪ]), and opening diphthongs are generally rising ([ɪ͡a]), because open vowels are more sonorous and

therefore tend to be more prominent. However, exceptions to this rule are not rare in the world's languages.

A **centering** diphthong is one that begins with a more peripheral vowel and ends with a more central one, such as [ɪə̯], [ɛə̯], and [ʊə̯ in Received Pronunciation or [iə̯] and [uə̯] in Irish. Many centering diphthongs are also opening diphthongs ([iə̯], [uə̯]).

Standard English diphthongs

	RP (British)	Australian	American	
			GA	Canadian
low	[əʊ̯]	[əɐ̯]	[oʊ̯]	
loud	[aʊ̯]	[æə̯]	[aʊ̯]	[aʊ̯]
lout				[əʊ̯]
lied	[aɪ̯]	[ɑe̯]	[aɪ̯]	[aɪ̯]
light				[əɪ̯]
lane	[eɪ̯]	[æɪ̯]	[eɪ̯]	
loin	[ɔɪ̯]	[oɪ̯]	[ɔɪ̯]	
leer	[ɪə̯]	[ɪə̯]	[ɪɚ̯]	
lair	[ɛə̯]	[eː̯]	[ɛɚ̯]	
lure	[ʊə̯]	[ʊə̯]	[ʊɚ̯]	

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Spanish Diphthongs

Spanish has six falling diphthongs and eight rising diphthongs. In addition, during fast speech, sequences of vowels in hiatus become diphthongs wherein one becomes non-syllabic (unless they are the same vowel, in which case they fuse together) as in *poeta* ['p̯oeta] ('poet') and *maestro* ['maestro] ('teacher'). The phonemic diphthongs are

falling

- /ei̯/ as in *rey* ('king')
- /ai̯/ as in *aire* ('air')
- /oi̯/ as in *hoy* ('today')
- /eu̯/ as in *neutro* ('neutral')
- /au̯/ as in *pausa* ('break')
- /ou̯/ as in *bou*

rising

- /je/ as in *tierra* ('earth')
- /ja/ as in *hacia* ('towards')
- /jo/ as in *radio* ('radio')
- /ju/ as in *viuda* ('widow')
- /wi/ as in *fuimos* ('we went')
- /we/ as in *fuego* ('fire')
- /wa/ as in *cuadro* ('picture')
- /wo/ as in *cuota* ('quota')

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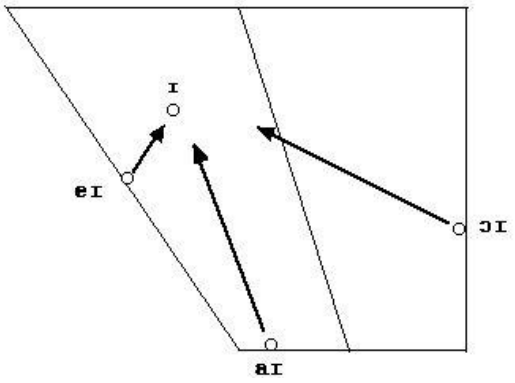
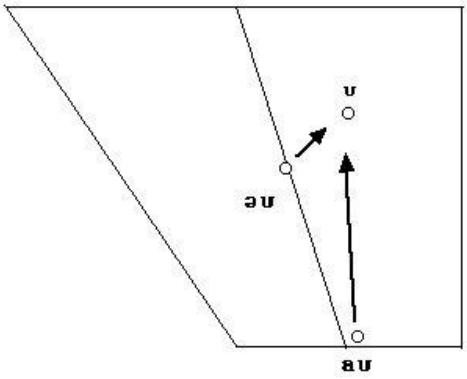
CHART POSITIONS OF ENGLISH DIPHTHONGS:

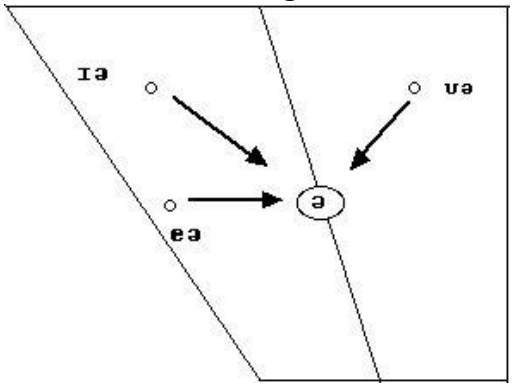
Rising to /ɪ/



Rising to / ʊ/



Centering



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